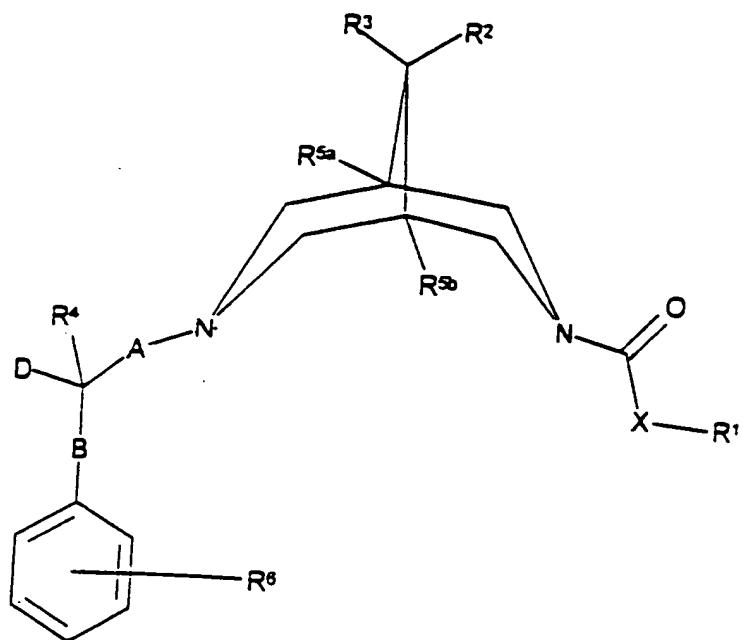


1 (Currently amended). A compound of formula I,



wherein

R<sup>1</sup> represents C<sub>1-12</sub> alkyl, cycloalkyl, -(CH<sub>2</sub>)<sub>a</sub>-aryl, or (CH<sub>2</sub>)<sub>a</sub>Het<sup>1</sup> (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C<sub>1-4</sub> alkyl, cycloalkyl and/or C<sub>1-4</sub> alkoxy or cycloalkoxy);

a represents 0, 1, 2, 3, or 4;

Het<sup>1</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R<sup>5a</sup> and R<sup>5b</sup> independently represent H or C<sub>1-3</sub> alkyl or cycloalkoxy;

R<sup>2</sup> and R<sup>3</sup> independently represent H, C<sub>1-4</sub> alkyl (optionally substituted with one or more nitro or cyano groups), cycloalkyl, OR<sup>7</sup>, N(R<sup>7a</sup>)R<sup>7b</sup>, OC(O)R<sup>8</sup> or together form -O-(CH<sub>2</sub>)<sub>2</sub>-O-, -(CH<sub>2</sub>)<sub>3</sub>-, -(CH<sub>2</sub>)<sub>4</sub>- or -(CH<sub>2</sub>)<sub>5</sub>-;

R<sup>7</sup> and R<sup>8</sup> independently represent H, C<sub>1-6</sub> alkyl, or -(CH<sub>2</sub>)<sub>b</sub>-aryl or cycloalkoxy (which latter two three groups are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C<sub>1-4</sub> alkyl and/or C<sub>1-4</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>7a</sup> and R<sup>7b</sup> independently represent H, or C<sub>1-6</sub> alkyl or cycloalkyl;

b represents 0, 1, 2, 3 or 4;

R<sup>4</sup> represents H, or C<sub>1-6</sub> alkyl or cycloalkyl;

D represents H, -OH, or -(CH<sub>2</sub>)<sub>c</sub>N(R<sup>10</sup>)(R<sup>11</sup>);

c represents 0, 1, 2, 3 or 4;

R<sup>10</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl, -(CH<sub>2</sub>)<sub>d</sub>-aryl, -C(NH)NH<sub>2</sub>, -S(O)<sub>2</sub>R<sup>13</sup>, -[C(O)]<sub>e</sub>N(R<sup>14</sup>)(R<sup>15</sup>), -C(O)R<sup>16</sup> or -C(O)OR<sup>17</sup>;

e represents 1 or 2;

R<sup>11</sup> represents H, C<sub>1-6</sub> alkyl, -C(O)R<sup>18</sup> or -(CH<sub>2</sub>)<sub>f</sub>-aryl (which latter group is optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl and/or C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup> and R<sup>18</sup> independently represent H, C<sub>1-6</sub> alkyl, cycloalkyl, Het<sup>2</sup> or -(CH<sub>2</sub>)<sub>g</sub>-aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl and/or C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

$R^{13}$  represents  $C_{1-6}$  alkyl, cycloalkyl, aryl or  $-(CH_2)_h$ -aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro,  $C_{1-6}$  alkyl and/or  $C_{1-6}$  alkoxy, cycloalkyl and/or cycloalkoxy);

d, f, g and h independently represent 0, 1, 2, 3 or 4;

$Het^2$  represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more  $=O$  substituents;

$R^6$  represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro,  $C_{1-6}$  alkyl (optionally terminated by  $-N(H)C(O)OR^{18a}$ ),  $C_{1-6}$  alkoxy, cycloalkyl, cycloalkoxy,  $-C(O)N(H)R^{19}$ ,  $-NHC(O)N(H)R^{20}$ ,  $-N(H)S(O)_2R^{21}$  and/or  $-OS(O)_2R^{22}$ ;

$R^{19}$  and  $R^{20}$  independently represent H or  $C_{1-6}$  alkyl or cycloalkyl;

$R^{18a}$ ,  $R^{21}$  and  $R^{22}$  independently represent  $C_{1-6}$  alkyl or cycloalkyl;

A represents a single bond,  $C_{1-6}$  alkylene,  $-N(R^{23})(CH_2)_j-$ ,  $-O(CH_2)_j-$  or  $-(CH_2)_jC(H)(OR^{23})(CH_2)_k-$  (in which latter three groups, the  $-(CH_2)_j-$  group is attached to the bispidine nitrogen atom, and which latter four groups are all optionally substituted by one or more OH groups);

B represents a single bond,  $C_{1-4}$  alkylene,  $-(CH_2)_mN(R^{24})-$ ,  $(CH_2)_mS(O)_n-$ ,  $-(CH_2)_mO-$  (in which three latter groups, the  $-(CH_2)_m-$  group is attached to the carbon atom bearing D and  $R^4$ ),  $-C(O)N(R^{24})-$  (in which latter group, the  $-C(O)-$  group is attached to the carbon atom bearing D and  $R^4$ ),  $N(R^{24})C(O)O(CH_2)_m-$  or  $-N(R^{24})(CH_2)_m-$  (in which latter two groups, the  $N(R^{24})$  group is attached to the carbon atom bearing D and  $R^4$ );

j, k and m independently represent 0, 1, 2, 3 or 4;

n represents 0, 1 or 2;

R<sup>23</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl or C(O)R<sup>25</sup>

R<sup>24</sup> represents H or C<sub>1-6</sub> alkyl or cycloalkyl;

R<sup>25</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl, Het<sup>3</sup> or -(CH<sub>2</sub>)<sub>p</sub>-aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl and/or C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

Het<sup>3</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

p represents 0, 1, 2, 3 or 4;

or a pharmaceutically acceptable salt, N-oxide or C<sub>1-4</sub> alkyl quaternary ammonium derivative thereof;

wherein alkyl groups that R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>18a</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and D may represent, and with which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted; and alkoxy groups and R<sup>6</sup> may represent, and with which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted, may be linear or, when there is a sufficient number (i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups; and

wherein alkylene groups that A and B may represent, and  $-(CH_2)-$  containing groups that  $R^1$ ,  $R^2$  and  $R^3$  (together),  $R^7$ ,  $R^8$ ,  $R^{10}$ ,  $R^{11}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$ ,  $R^{25}$ , A, B and D may include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms, be branched, and wherein such alkylene groups and  $-(CH_2)-$  containing chains may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen;

provided that:

- (a) when D represents either H or  $-OH$ , and  $R^{5a}$  and  $R^{5b}$  both represent H, then at least one of  $R^2$  and  $R^3$  represents  $OR^7$ ,  $OC(O)R^8$  or  $C_{1-4}$  alkyl, which alkyl group is substituted with one or more nitro or cyano groups; and
- (b) when D represents  $-OH$  or  $-(CH_2)_cN(R^{10})R^{11}$  in which c represents 0, then:-
  - (i) A does not represent  $-N(R^{23})(CH_2)_j-$ ,  $-O(CH_2)_j-$  or  $-CH_2)_jC(H)(OR^{23})(CH_2)_k-$  (in which k is 0); and/or
  - (ii) m does not represent 0 when B represents  $-(CH_2)_mN(R^{24})-$ ,  $-(CH_2)_mS(O)_n-$  or  $-(CH_2)_mO-$ .

2 (previously amended). A compound as claimed in Claim 1, wherein  $R^1$  represents optionally substituted  $-(CH_2)_a$ -phenyl, in which a is 0, 1, 2 or 3, or optionally substituted, optionally unsaturated, linear, branched or cyclic,  $C_{1-18}$  alkyl (which latter group may also be interrupted by an oxygen atom).

3 (previously amended). A compound as claimed in Claim 1, wherein  $R^2$  represents H,  $OR^7$ ,  $-CH_2NO_2$  or  $-OC(O)R^8$  or together with  $R^3$   $-O-(CH_2)_2-O-$ .

4 (previously amended). A compound as claimed in Claim 1, wherein R<sup>3</sup> represents H, OR<sup>7</sup>, C<sub>1-4</sub> alkyl or together with R<sup>2</sup> represents -O-(CH<sub>2</sub>)<sub>2</sub>-O-.

5 (previously amended). A compound as claimed in Claim 1, wherein R<sup>4</sup> represents H or C<sub>1-2</sub> alkyl.

6 (previously amended). A compound as claimed in Claim 1, wherein R<sup>5a</sup> and R<sup>5b</sup> either both represent H or both represent methyl.

7 (previously amended). A compound as claimed in Claim 1, wherein R<sup>6</sup> represents one or more substituents selected from C<sub>1-6</sub> alkyl, cyano, nitro, amino or C(O)N(H)R<sup>19</sup> or N(H)S(O)<sub>2</sub>R<sup>21</sup>.

8 (previously amended). A compound as claimed in Claim 1, wherein X represents O.

9 (previously amended). A compound as claimed in Claim 1, wherein A represents a single bond or linear, or branched, C<sub>1-4</sub> alkylene (which group is also optionally interrupted by O).

10 (previously amended). A compound as claimed in Claim 1, wherein B represents a single bond, C<sub>1-4</sub> alkylene, -(CH<sub>2</sub>)<sub>m</sub>O- or -(CH<sub>2</sub>)<sub>m</sub>N(R<sup>24</sup>)- (in which latter two cases m is 1, 2 or 3).

11 (previously amended). A compound as claimed in Claim 1, wherein when D represents  $-(CH_2)_cN(R^{10})(R^{11})$ , c represents 0, 1 or 2.

12 (previously amended). A compound as claimed in Claim 1, wherein when D represents  $-(CH_2)_cN(R^{10})(R^{11})$ ,  $R^{10}$  represents H,  $C_{1-4}$  alkyl,  $-C(O)R^{16}$  (in which  $R^{16}$  is H,  $C_{1-3}$  alkyl or  $Het^2$ ),  $-C(O)OR^{17}$  (in which  $R^{17}$  is  $C_{1-5}$  alkyl, phenyl or  $C_{1-3}$  alkylphenyl),  $-C(NH)NH_2$  or  $[C(O)]_eN(H)R_{15}$  (in which  $R_{15}$  is H or  $C_{1-3}$  alkyl).

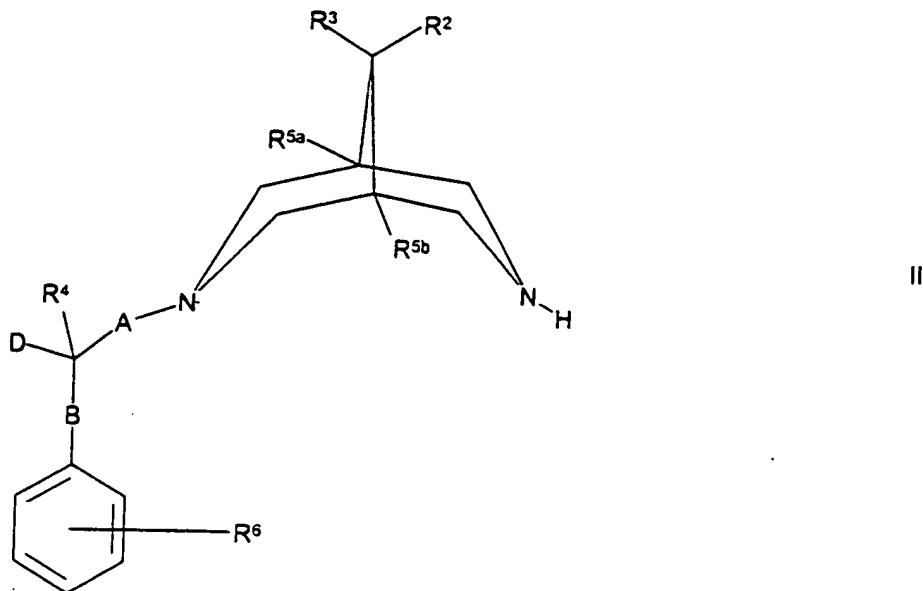
13 (previously amended). A compound as claimed in Claim 1, wherein when D represents  $-(CH)_cN(R^{10})(R^{11})$ ,  $R^{11}$  represents H.

14 (previously amended). A pharmaceutical formulation including a compound as defined in Claim 1 in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier.

20 (currently amended). A method of prophylaxis or treatment of an arrhythmia which method comprises administration of a therapeutically effective amount of a compound as defined in Claim 1 to a person suffering from or susceptible to, such a condition in need thereof.

21 (currently amended). A process for the preparation of a compound of formula I as defined in Claim 1 which comprises:

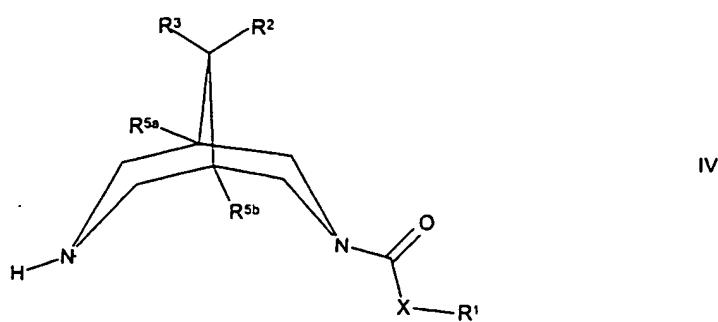
(a) reaction of a compound of formula II,



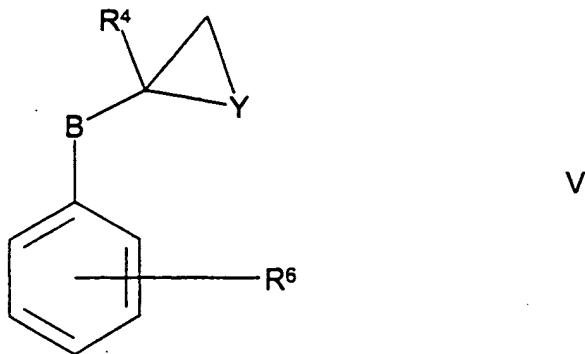
wherein  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^{5a}$ ,  $R^{5b}$ ,  $R^6$ , A, B and D are as defined in Claim 1 with a compound of formula III,



wherein  $L^1$  represents a leaving group and  $R'$  and  $X$  are as defined in Claim 1;  
(b) for compounds of formula I in which A represents  $CH_2$  and D represents  $-OH$  or  $N(R^{10})H$ , reaction of a compound of formula IV,

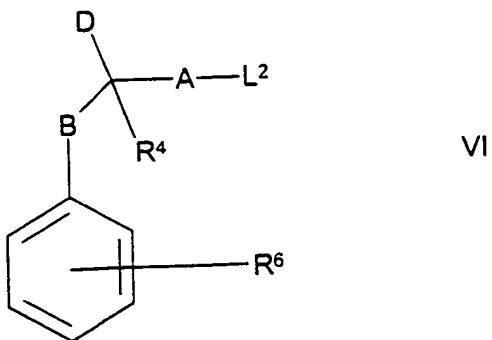


wherein  $R'$ ,  $R^2$ ,  $R^3$ ,  $R^{5a}$ ,  $R^{5b}$  and  $X$  are as defined in Claim 1, with a compound of formula V,



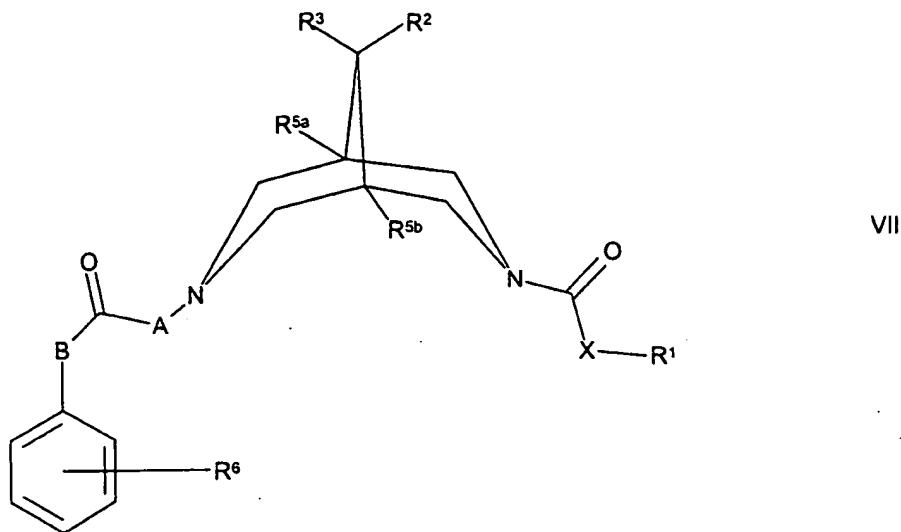
wherein  $Y$  represents 0 or  $N(R^{10})$  and  $R^4$ ,  $R^6$ ,  $R^{10}$  and  $B$  are as defined in Claim 1;

(c) reaction of a compound of formula IV, as defined above, with a compound of formula VI,



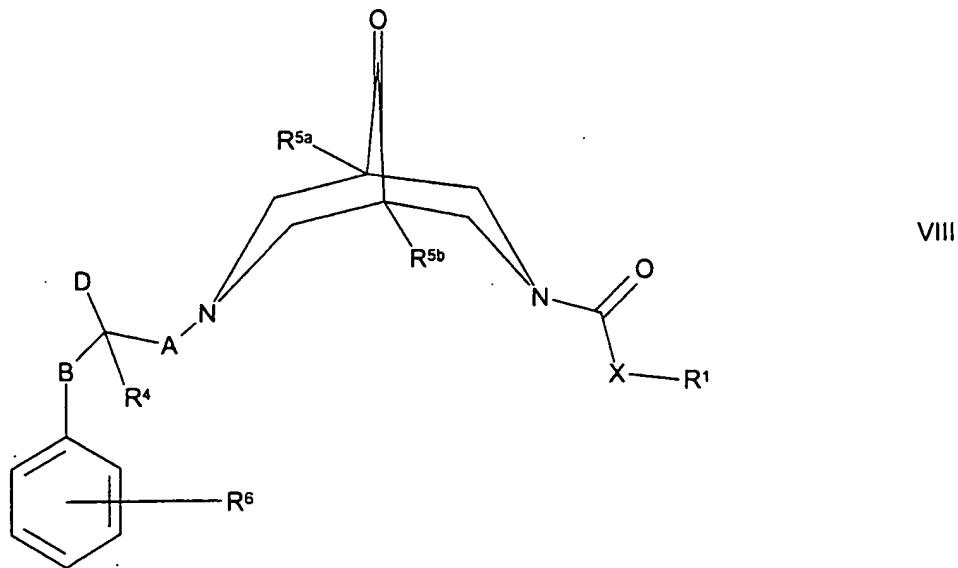
wherein  $L^2$  represents a leaving group and  $R^4$ ,  $R^6$ ,  $A$ ,  $B$  and  $D$  are as defined in Claim 1;

(d) for compounds of formula I in which  $D$  represents H or OH and  $R^4$  represents H, reduction of a compound of formula VII,



wherein R', R<sup>2</sup>, R<sup>3</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and X are as defined in Claim 1;

(e) for compounds of formula I in which one of R<sup>2</sup> and R<sup>3</sup> represents H or OH and the other represents H, reduction of a corresponding compound of formula VIII,



wherein R<sup>1</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B, D and X are as defined in Claim 1;

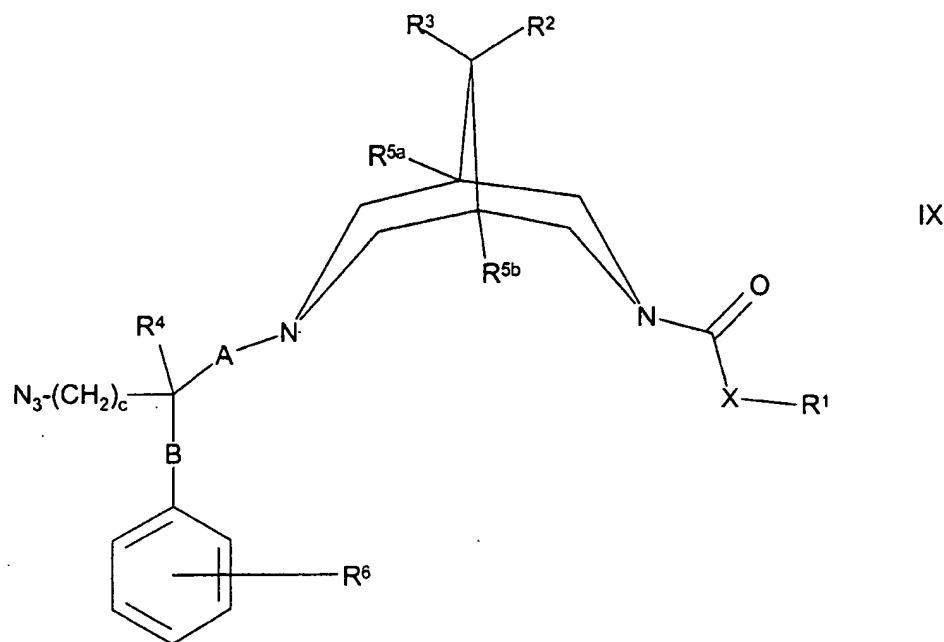
(f) for compounds of formula I in which R<sup>2</sup> and/or R<sup>3</sup> represents OC(O)R<sup>8</sup> and R<sup>8</sup> is as defined in Claim 1, coupling of a corresponding compound of formula I in which R<sup>2</sup>

and/or R<sup>3</sup> (as appropriate) represents OH and a compound of formula VIIIA,



wherein R<sup>8</sup> is as defined in Claim 1;

(g) for compounds of formula I in which D represents  $-(\text{CH}_2)_c\text{NH}_2$ , reduction of a corresponding compound of formula IX,



wherein c, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and X are as defined in Claim 1;

(h) for compounds of formula I in which D represents  $-\text{N}(\text{R}^{11})\text{C}(\text{O})\text{NH}(\text{R}^{15})$ , in which R<sup>11</sup> and R<sup>15</sup> are as defined in Claim 1 except that R<sup>11</sup> does not represent C(O)R<sup>18</sup>, reaction of a corresponding compound of formula I in which D represents  $-\text{N}(\text{R}^{11})\text{H}$ , in which R<sup>11</sup> is as defined in Claim 1 except that it does not represent C(O)R<sup>18</sup> in which R<sup>18</sup> is as defined in Claim 1, with a compound of formula X,



wherein R<sup>15</sup> is as defined in Claim 1;

(i) for compounds of formula I in which D represents  $-N(H)[C(O)]_2NH_2$ , reaction of a corresponding compound of formula I in which D represents

$-NH_2$  with oxalic acid diamide;

(j) for compounds of formula I in which D represents  $-N(R^{11})C(O)R^{16}$ , in which  $R^{11}$  and  $R^{16}$  are as defined in Claim 1 except that  $R^{11}$  does not represent  $C(O)R^{18}$ , reaction of a corresponding compound of formula I in which D represents  $-N(R^{11})H$ , in which  $R^{11}$  is as defined in Claim 1 except that it does not represent  $C(O)R^{18}$  in which  $R^{18}$  is as defined in Claim 1, with a compound of formula XI,



wherein  $R_x$  represents a suitable leaving group and  $R^{16}$  is as defined in Claim 1;

(k) for compounds of formula I in which D represents  $-N(H)R^{10}$  and  $R^{10}$  is as defined in Claim 1 except that it does not represent H or  $-C(NH)NH_2$ , reaction of a corresponding compound of formula I wherein D represents  $-NH_2$  with a compound of formula XIA,



wherein  $R^{10a}$  represents  $R^{10}$  as defined in Claim 1 except that it does not represent H or  $-C(NH)NH_2$  and  $L^1$  is as defined above;

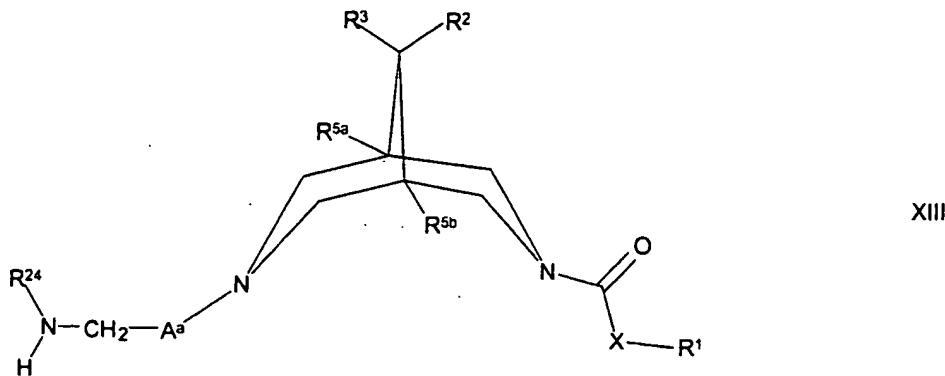
(l) for compounds of formula I which are bispidine-nitrogen N-oxide derivatives, oxidation of the corresponding bispidine nitrogen of a corresponding compound of formula I;

(m) for compounds of formula I which are  $C_{1-4}$  alkyl quaternary ammonium salt derivatives, in which the alkyl group is attached to a bispidine nitrogen, reaction, at the bispidine nitrogen, of a corresponding compound of formula I with a compound of formula XII,

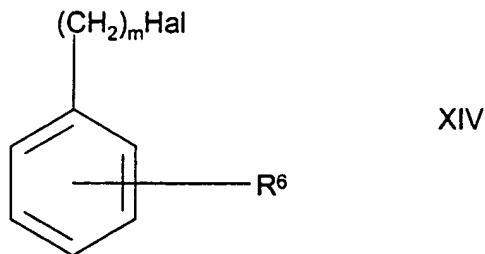


wherein  $R^a$  represents  $C_{1-4}$  alkyl and Hal represents Cl, Br or I;

(n) for compounds of formula I in which D and  $R^4$  both represent H, A represents  $C_{1-6}$  alkylene, B represents  $N(R^{24})(CH_2)_m$  and m and  $R^{24}$  are as defined in Claim 1, reaction of a compound of formula XIII,



wherein  $A^a$  represents  $C_{1-6}$  alkylene and  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^{5a}$ ,  $R^{5b}$ ,  $R^{24}$  and  $X$  are as defined in Claim 1 with a compound of formula XIV,



wherein  $R^6$ , m are as defined in Claim 1 and Hal is as defined above;

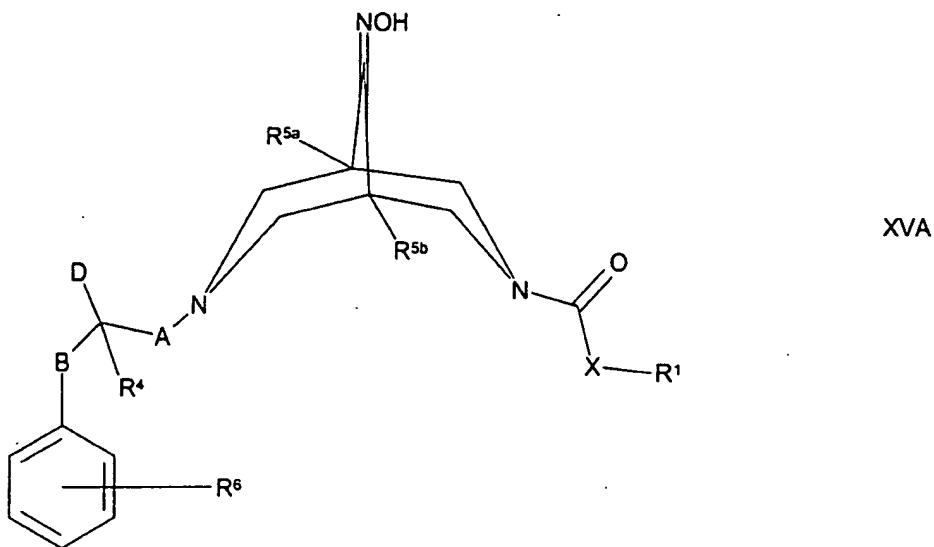
(o) reaction of a compound of formula II, as defined above, with a compound of formula XV,



wherein  $R^1$  and X are as defined in Claim 1, in the presence of 1,1'-carbonyldiimidazole;

(p) for compounds of formula I in which one of  $R^2$  and  $R^3$  represents  $-NH_2$  and the

other represents H, reduction of a compound of formula XVA,



wherein R<sup>1</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B, D and X are as defined in Claim 1;

(q) for compounds of formula I in which one or both of R<sup>2</sup> and R<sup>3</sup> represent -N(R<sup>7a</sup>)R<sup>7b</sup> in which one or both of R<sup>7a</sup> and R<sup>7b</sup> represents C<sub>1-6</sub> alkyl, alkylation of a corresponding compound of formula I in which R<sup>2</sup> and/or R<sup>3</sup> represent -N(R<sup>7a</sup>)R<sup>7b</sup> (as appropriate) in which R<sup>7a</sup> and/or R<sup>7b</sup> (as appropriate) represent H, using a compound of formula XXIB,

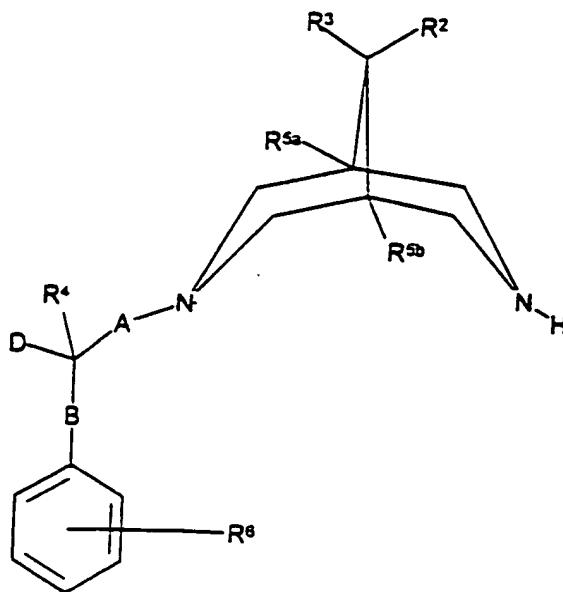


wherein R<sup>7c</sup> represents C<sub>1-6</sub> alkyl and L<sup>1</sup> is as defined above; or

(r) conversion of one R<sup>6</sup> substituent to another; or

(s) (r) deprotection of a protected derivative of a compound of formula I as defined in Claim 1.

22 (currently amended). A compound of formula II



II

wherein R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and D are as defined in Claim 1

R<sup>5a</sup> and R<sup>5b</sup> independently represent H, C<sub>1-3</sub> alkyl or cycloalkoxy;

R<sup>2</sup> and R<sup>3</sup> independently represent H, C<sub>1-4</sub> alkyl (optionally substituted with one or more nitro or cyano groups), cycloalkyl, OR<sup>7</sup>, N(R<sup>7a</sup>)R<sup>7b</sup>, OC(O)R<sup>8</sup> or together form -O-(CH<sub>2</sub>)<sub>2</sub>-O-, -(CH<sub>2</sub>)<sub>3</sub>-, -(CH<sub>2</sub>)<sub>4</sub>- or -(CH<sub>2</sub>)<sub>5</sub>-;

R<sup>7</sup> and R<sup>8</sup> independently represent H, C<sub>1-6</sub> alkyl, -(CH<sub>2</sub>)<sub>b</sub>-aryl or cycloalkoxy (which latter three groups are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>7a</sup> and R<sup>7b</sup> independently represent H, C<sub>1-6</sub> alkyl or cycloalkyl;

b represents 0, 1, 2, 3 or 4;

R<sup>4</sup> represents H, C<sub>1-6</sub> alkyl or cycloalkyl;

D represents H, -OH, or -(CH<sub>2</sub>)<sub>c</sub>N(R<sup>10</sup>)(R<sup>11</sup>);

c represents 0, 1, 2, 3 or 4;

R<sup>10</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl, -(CH<sub>2</sub>)<sub>d</sub>-aryl, -C(NH)NH<sub>2</sub>, -S(O)<sub>2</sub>R<sup>13</sup>, -[C(O)]<sub>e</sub>N(R<sup>14</sup>)(R<sup>15</sup>), -C(O)R<sup>16</sup> or -C(O)OR<sup>17</sup>.

e represents 1 or 2;

R<sup>11</sup> represents H, C<sub>1-6</sub> alkyl, -C(O)R<sup>18</sup> or -(CH<sub>2</sub>)<sub>1-5</sub>aryl (which latter group is optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup> and R<sup>18</sup> independently represent H, C<sub>1-6</sub> alkyl, cycloalkyl, Het<sup>2</sup> or -(CH<sub>2</sub>)<sub>1-5</sub>aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>13</sup> represents C<sub>1-6</sub> alkyl, cycloalkyl, aryl or -(CH<sub>2</sub>)<sub>1-5</sub>aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

d, f, g and h independently represent 0, 1, 2, 3 or 4;

Het<sup>2</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

R<sup>6</sup> represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl (optionally terminated by -N(H)C(O)OR<sup>18a</sup>), C<sub>1-6</sub> alkoxy, cycloalkyl, cycloalkoxy, -C(O)N(H)R<sup>19</sup>, -NHC(O)N(H)R<sup>20</sup>, -N(H)S(O)<sub>2</sub>R<sup>21</sup> and/or -OS(O)<sub>2</sub>R<sup>22</sup>;

R<sup>19</sup> and R<sup>20</sup> independently represent H, C<sub>1-6</sub> alkyl or cycloalkyl;

R<sup>18a</sup>, R<sup>21</sup> and R<sup>22</sup> independently represent C<sub>1-6</sub> alkyl or cycloalkyl;

A represents a single bond, C<sub>1-6</sub> alkylene, -N(R<sup>23</sup>)(CH<sub>2</sub>)<sub>1-5</sub>-, -O(CH<sub>2</sub>)<sub>1-5</sub>- or -(CH<sub>2</sub>)<sub>1-5</sub>C(H)(OR<sup>23</sup>)(CH<sub>2</sub>)<sub>1-5</sub>- (in which latter three groups, the -(CH<sub>2</sub>)<sub>1-5</sub>- group is attached to

the bispidine nitrogen atom, and which latter four groups are all optionally substituted by one or more OH groups);

B represents a single bond, C<sub>1-4</sub> alkylene, -(CH<sub>2</sub>)<sub>m</sub>N(R<sup>24</sup>)-, (CH<sub>2</sub>)<sub>m</sub>S(O)<sub>n</sub>-,  
-(CH<sub>2</sub>)<sub>m</sub>O- (in which three latter groups, the -(CH<sub>2</sub>)<sub>m</sub>- group is attached to the carbon  
atom bearing D and R<sup>4</sup>), -C(O)N(R<sup>24</sup>)- (in which latter group, the -C(O)- group is  
attached to the carbon atom bearing D and R<sup>4</sup>), N(R<sup>24</sup>)C(O)O(CH<sub>2</sub>)<sub>m</sub>- or -N(R<sup>24</sup>)(CH<sub>2</sub>)<sub>m</sub>-  
(in which latter two groups, the N(R<sup>24</sup>) group is attached to the carbon atom bearing D  
and R<sup>4</sup>);

j, k and m independently represent 0, 1, 2, 3 or 4;

n represents 0, 1 or 2;

R<sup>23</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl or C(O)R<sup>25</sup>

R<sup>24</sup> represents H, C<sub>1-6</sub> alkyl or cycloalkyl;

R<sup>25</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl, Het<sup>3</sup> or -(CH<sub>2</sub>)<sub>p</sub>-aryl (which latter two  
groups are optionally substituted by one or more substituents selected from -OH, cyano,  
halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

Het<sup>3</sup> represents a five to ten-membered heterocyclic ring containing one or more  
heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally  
includes one or more =O substituents;

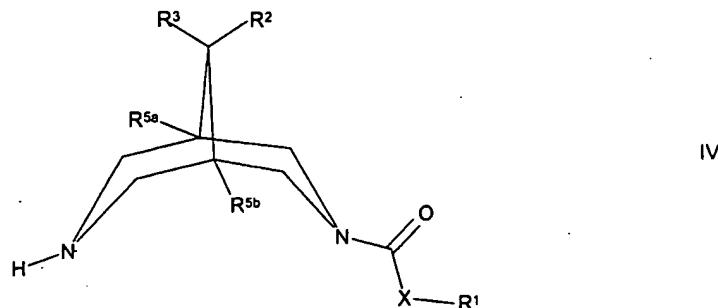
p represents 0, 1, 2, 3 or 4;

wherein alkyl groups that R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>,  
R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>18a</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and D may represent, and  
with which R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted; and  
alkoxy groups and R<sup>6</sup> may represent, and with which R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>,  
R<sup>18</sup> and R<sup>25</sup> may be substituted, may be linear or, when there is a sufficient number (i.e.

three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups; and wherein alkylene groups that A and B may represent, and  $-(CH_2)-$  containing groups that  $R^2$  and  $R^3$  (together),  $R^7$ ,  $R^8$ ,  $R^{10}$ ,  $R^{11}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$ ,  $R^{25}$ , A, B and D may include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms, be branched, and wherein such alkylene groups and  $-(CH_2)-$  containing chains may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen,

or a derivative thereof, provided that when  $R^{5a}$  and  $R^{5b}$  both represent H, then D does not represent H or OH.

23 (currently amended). A compound of formula IV



wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^{5a}$ ,  $R^{5b}$  and X are as defined in Claim 1

R<sup>1</sup> represents C<sub>1-12</sub> alkyl, cycloalkyl, -(CH<sub>2</sub>)<sub>a</sub>-aryl, or (CH<sub>2</sub>)<sub>a</sub>Het<sup>1</sup> (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C<sub>1-4</sub> alkyl, cycloalkyl and/or C<sub>1-4</sub> alkoxy or cycloalkoxy);

a represents 0, 1, 2, 3, or 4;

Het<sup>1</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R<sup>5a</sup> and R<sup>5b</sup> independently represent H, C<sub>1-3</sub> alkyl or cycloalkoxy;

R<sup>2</sup> and R<sup>3</sup> independently represent H, C<sub>1-4</sub> alkyl (optionally substituted with one or more nitro or cyano groups), cycloalkyl, OR<sup>7</sup>, N(R<sup>7a</sup>)R<sup>7b</sup>, OC(O)R<sup>8</sup> or together form -O-(CH<sub>2</sub>)<sub>2</sub>-O-, -(CH<sub>2</sub>)<sub>3</sub>-, -(CH<sub>2</sub>)<sub>4</sub>- or -(CH<sub>2</sub>)<sub>5</sub>-;

R<sup>7</sup> and R<sup>8</sup> independently represent H, C<sub>1-6</sub> alkyl, -(CH<sub>2</sub>)<sub>b</sub>-aryl or cycloalkoxy (which latter three groups are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C<sub>1-4</sub> alkyl, or C<sub>1-4</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>7a</sup> and R<sup>7b</sup> independently represent H, C<sub>1-6</sub> alkyl or cycloalkyl;

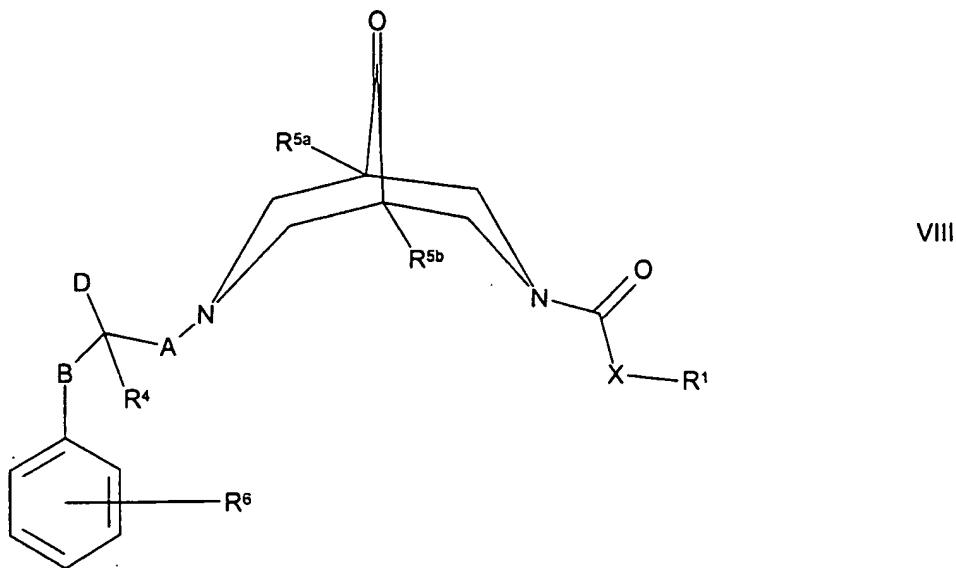
b represents 0, 1, 2, 3 or 4;

wherein alkyl groups that R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup> and R<sup>8</sup> may represent, and with which R<sup>1</sup>, R<sup>7</sup> and R<sup>8</sup> may be substituted; and alkoxy groups and with which R<sup>1</sup>, R<sup>7</sup> and R<sup>8</sup> may be substituted, may be linear or, when there is a sufficient number (i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or,

when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups;

or a derivative thereof, provided that when  $R^{5a}$  and  $R^{5b}$  both represent H, then at least one of  $R^2$  and  $R^3$  represents  $OR^7$ ,  $OC(O)R^8$  or  $C_{1-4}$  alkyl, which alkyl group is substituted with one or more nitro or cyano groups.

24 (currently amended). A compound of formula VIII



wherein  $R^1$ ,  $R^4$ ,  $R^{5a}$ ,  $R^{5b}$ ,  $R^6$ , A, B, D and X are as defined in Claim 1

$R^1$  represents  $C_{1-12}$  alkyl, cycloalkyl,  $-(CH_2)_a$ -aryl, or  $(CH_2)_a$ Het<sup>1</sup> (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl, cycloalkyl and/or  $C_{1-4}$  alkoxy or cycloalkoxy);

a represents 0, 1, 2, 3, or 4;

Het<sup>1</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R<sup>5a</sup> and R<sup>5b</sup> independently represent H, C<sub>1-3</sub> alkyl or cycloalkoxy;

R<sup>4</sup> represents H, C<sub>1-6</sub> alkyl or cycloalkyl;

D represents H, -OH, or -(CH<sub>2</sub>)<sub>c</sub>N(R<sup>10</sup>)(R<sup>11</sup>);

c represents 0, 1, 2, 3 or 4;

R<sup>10</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl, -(CH<sub>2</sub>)<sub>d</sub>-aryl, -C(NH)NH<sub>2</sub>, -S(O)<sub>2</sub>R<sup>13</sup>,

-[C(O)]<sub>e</sub>N(R<sup>14</sup>)(R<sup>15</sup>), -C(O)R<sup>16</sup> or -C(O)OR<sup>17</sup>;

e represents 1 or 2;

R<sup>11</sup> represents H, C<sub>1-6</sub> alkyl, -C(O)R<sup>18</sup> or -(CH<sub>2</sub>)<sub>f</sub>-aryl (which latter group is optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup> and R<sup>18</sup> independently represent H, C<sub>1-6</sub> alkyl, cycloalkyl, Het<sup>2</sup> or -(CH<sub>2</sub>)<sub>g</sub>-aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

R<sup>13</sup> represents C<sub>1-6</sub> alkyl, cycloalkyl, aryl or -(CH<sub>2</sub>)<sub>h</sub>-aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

d, f, g and h independently represent 0, 1, 2, 3 or 4;

Het<sup>2</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

R<sup>6</sup> represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl (optionally terminated by -N(H)C(O)OR<sup>18a</sup>), C<sub>1-6</sub> alkoxy,

cycloalkyl, cycloalkoxy, -C(O)N(H)R<sup>19</sup>, -NHC(O)N(H)R<sup>20</sup>, -N(H)S(O)<sub>2</sub>R<sup>21</sup> and/or -OS(O)<sub>2</sub>R<sup>22</sup>:

R<sup>19</sup> and R<sup>20</sup> independently represent H, C<sub>1-6</sub> alkyl or cycloalkyl;

R<sup>18a</sup>, R<sup>21</sup> and R<sup>22</sup> independently represent C<sub>1-6</sub> alkyl or cycloalkyl;

A represents a single bond, C<sub>1-6</sub> alkylene, -N(R<sup>23</sup>)(CH<sub>2</sub>)<sub>j</sub>-, -O(CH<sub>2</sub>)<sub>j</sub>- or

-(CH<sub>2</sub>)<sub>j</sub>C(H)(OR<sup>23</sup>)(CH<sub>2</sub>)<sub>k</sub>- (in which latter three groups, the -(CH<sub>2</sub>)<sub>j</sub>- group is attached to the bispidine nitrogen atom, and which latter four groups are all optionally substituted by one or more OH groups);

B represents a single bond, C<sub>1-4</sub> alkylene, -(CH<sub>2</sub>)<sub>m</sub>N(R<sup>24</sup>)-, (CH<sub>2</sub>)<sub>m</sub>S(O)<sub>n</sub>-,

-(CH<sub>2</sub>)<sub>m</sub>O- (in which three latter groups, the -(CH<sub>2</sub>)<sub>m</sub>- group is attached to the carbon atom bearing D and R<sup>4</sup>), -C(O)N(R<sup>24</sup>)- (in which latter group, the -C(O)- group is attached to the carbon atom bearing D and R<sup>4</sup>), N(R<sup>24</sup>)C(O)O(CH<sub>2</sub>)<sub>m</sub>- or -N(R<sup>24</sup>)(CH<sub>2</sub>)<sub>m</sub>- (in which latter two groups, the N(R<sup>24</sup>) group is attached to the carbon atom bearing D and R<sup>4</sup>);

j, k and m independently represent 0, 1, 2, 3 or 4;

n represents 0, 1 or 2;

R<sup>23</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl or C(O)R<sup>25</sup>

R<sup>24</sup> represents H, C<sub>1-6</sub> alkyl or cycloalkyl;

R<sup>25</sup> represents H, C<sub>1-6</sub> alkyl, cycloalkyl, Het<sup>3</sup> or -(CH<sub>2</sub>)<sub>p</sub>-aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cycloalkyl and/or cycloalkoxy);

Het<sup>3</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

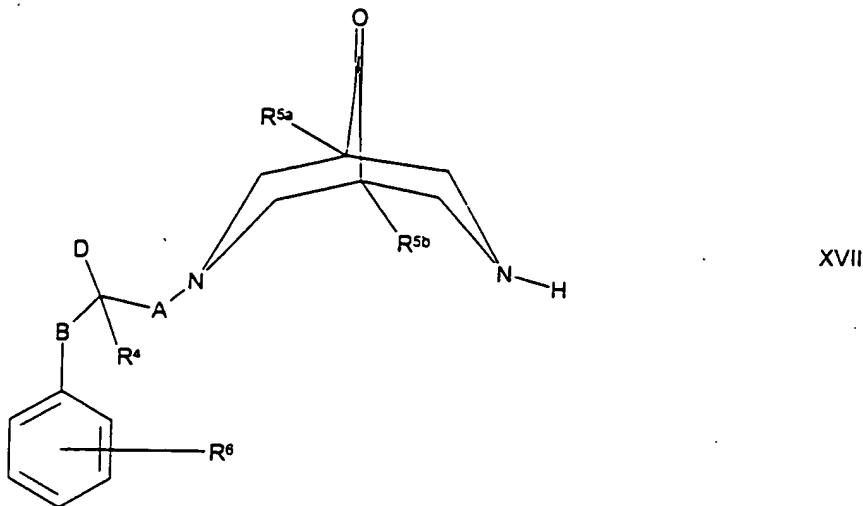
p represents 0, 1, 2, 3 or 4;

wherein alkyl groups that R<sup>1</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>,  
R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>18a</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and D may represent, and with  
which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted; and  
alkoxy groups and R<sup>6</sup> may represent, and with which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>,  
R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted, may be linear or, when there is a sufficient number  
(i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a  
sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be  
part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or,  
when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or  
interrupted by oxygen and/or substituted by one or more fluoro groups; and

wherein alkylene groups that A and B may represent, and -(CH<sub>2</sub>)- containing  
groups that R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>25</sup>, A, B and D may  
include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms,  
be branched, and wherein such alkylene groups and -(CH<sub>2</sub>)- containing chains may  
also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be  
unsaturated and/or interrupted by oxygen,

or a derivative thereof, provided that when R<sup>5a</sup> and R<sup>5b</sup> both represent H, then D does not represent H or OH.

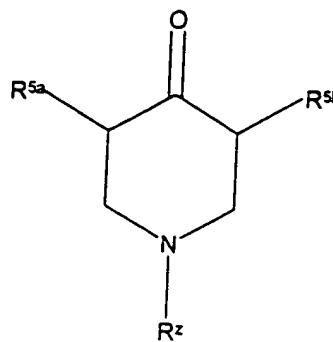
25 (previously presented). A compound of formula XVII,



XVII

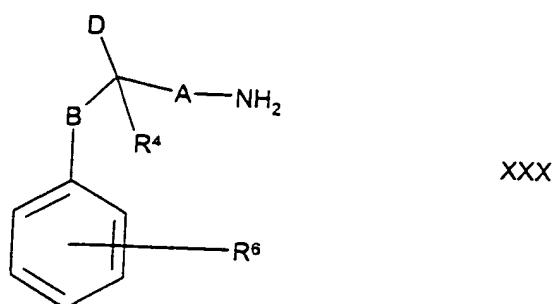
wherein  $R^4$ ,  $R^{5a}$ ,  $R^{5b}$ ,  $R^6$ , A, B and D are as defined in Claim 1, or a protected derivative thereof, provided that when  $R^{5a}$  and  $R^{5b}$  both represent H, then D does not represent H or OH.

26 (currently amended). A process for the preparation of a compound of formula VIII, as defined in Claim 24, or a compound of formula XVII, as defined in Claim 25, which comprises reaction of a compound of formula XXIX,



wherein R<sup>Z</sup> represents H or -C(O)XR<sup>1</sup> and R<sup>1</sup>, R<sup>5a</sup>, R<sup>5b</sup> and X are as defined in

Claim 1 with a compound of formula XXX,



or a protected derivative thereof, wherein R<sup>4</sup>, R<sup>6</sup>, A, B and D are as defined in

Claim 1, in the presence of a formaldehyde.

27 (previously presented). A method as claimed in Claim 20, wherein the arrhythmia is an atrial or a ventricular arrhythmia.